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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/827,068 | CHERITON, DAVID R. | |
| | Examiner | Art Unit | |
| | SRINIVASA R. REDDIVALAM | 2619 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *19 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *13-74* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-19,21-39 and 41-74* is/are rejected.

7)☒ Claim(s) *20 and 40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/19/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because it contains more than 150 words i.e. around 256 words and should be limited to 150 words. Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities:

In page 3, line 15 of the specification, the verb "becomes" needs to be changed to "become".

In page 9, line 15 of the specification, it says "those skilled in the will art" and should be changed to "those skilled in the art will".

In page 13, line 7 of the specification, it says "those skilled in the will art realize that" and should be changed to "those skilled in the art will realize that".

Appropriate correction is required.

### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated

by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 65-67 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,724,721 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed invention is same in both cases. In the instant application, the claims recite an apparatus comprising means for doing the steps is same as in the parent patent '721 in which claims recite the method comprising the same steps and scope of the claims in both cases is same.

Analysis of Claims: For claim 65, an apparatus comprising: means for parsing an incoming packet comprising a plurality of fields to generate an extracted plurality of fields (see US Patent 6,724,721, claim 1, lines 3-4); means for transforming said extracted plurality of fields according to an algorithm to generate a result wherein said means for transforming comprises at least one of, means for hashing data of said extracted plurality of fields, and means for concatenating data of said extracted plurality of fields (see US Patent 6,724,721, claim 1, lines 5-9); means for mapping said result according to a mapping function wherein the output of said mapping function is an index corresponding to a flow table entry (see US Patent 6,724,721, claim 1, lines 10-12); means for reading the flow table entry identified by said index, said flow table entry containing at least a field identifying a credit value (see US Patent 6,724,721, claim 1, lines 13-15); means for comparing said credit value to a quantity signifying insufficient credits (see US Patent 6,724,721, claim 1, lines 16-17); means for processing or dropping the packet based on said comparing (see US Patent 6,724,721, claim 1, lines 18-19); and means for periodically incrementing said credit value by an increment (see US Patent 6,724,721, claim 1, lines 20-21).

For claim 66, the apparatus of claim 65, wherein said means for processing further comprises (see US Patent 6,724,721, claim 2, lines 1-2): means for testing a size of the packet against said credit value (see US Patent 6,724,721, claim 2, line 3); means for decrementing said credit value by the size of the packet if the size is less than or equal to said credit value (see US Patent 6,724,721, claim 2, lines 4-5); and

means for setting said credit value to zero and dropping the packet if the size is greater than said credit value (see US Patent 6,724,721, claim 2, lines 6-7).

For claim 67, the apparatus of Claim 65, wherein said means for processing further comprises (see US Patent 6,724,721, claim 3, lines 1-2): means for enqueuing the packet if said credit value is greater than or equal to zero (see US Patent 6,724,721, claim 2, lines 3-4); and means for dropping the packet if said credit value is less than zero (see US Patent 6,724,721, claim 2, line 5).

The difference is instant application's apparatus comprising means for and it would have been obvious to include the apparatus/means for component for the method to practically apply the invention.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 53-58 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

For claims 53-58, the claims are directed to a machine-readable medium which is non-statutory subject matter. The claims recite a machine-readable medium having a plurality of instructions executable by a machine embodied therein and the claims do not recite “a computer readable medium” encoded with a “computer executable instructions” and without this, the functionality of the claims can not be carried out.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 13-19, 21, 25-26, 28-39, 41, 45-46, and 48-70 are rejected under 35 U.S.C. 102(e) as being anticipated by Spinney et al. (US Patent No: 6,426,943 B1).

**Regarding claim 13**, Spinney et al. teach a method comprising: extracting at least one field from a data packet (see col.18, line 58 to col.19, line 2 wherein the extraction of header data bytes is mentioned); determining a flow table index value using said at least one field (see col.19, lines 12-14 and lines 31-44 wherein determination of flow tag based on the extracted data bytes is mentioned); identifying a flow table entry using said flow table index value (see col.19, lines 34-57) wherein said flow table entry comprises a first field associated with a rate credit value (see col.20, lines 33-39 wherein transmit credits for the corresponding circuit is mentioned), and a second field associated with a buffer count value (see col.20, lines 39-49 wherein buffer length in bytes is mentioned); and processing said packet using said rate credit value and said buffer count value (see col.20, lines 49-65 wherein queue service policy for transmission of data packets is mentioned).

**Regarding claim 14**, Spinney et al. teach the method wherein said rate credit value represents a transfer rate of a flow associated with said flow table entry (see col.20, lines 33-39 wherein transmit credits for the corresponding flow/circuit is mentioned), and said buffer count value represents quantity of memory space allocated to said flow associated with said flow table entry (see col.20, lines 39-55 wherein buffer length in bytes for the corresponding flow/circuit is mentioned).

**Regarding claims 15 and 16**, Spinney et al. teach the method further comprising: periodically incrementing said credit value by an increment and wherein said periodically incrementing comprises: periodically incrementing said credit value by an increment up to a predetermined maximum value (see col.24, lines 30-40 wherein the proper establishment of credit by MOM to QM about every 10 milliseconds is mentioned).

**Regarding claim 17**, Spinney et al. teach the method wherein said at least one field comprises a set of fields, and said determining said flow table index value comprises determining said flow table index value using a subset of said set of fields (see col.19, lines 12-44).

**Regarding claim 18**, Spinney et al. teach the method wherein said flow table index value belongs to a first set of values, and a maximum number of values in said first set of values is less than a maximum number of possible flows (see col.20, lines 29-32 wherein maximum no. of transmit queues for the circuits is mentioned).

**Regarding claim 19**, Spinney et al. teach the method wherein said at least one field from a data packet comprises a source address field and a destination address

field (see Fig.7A and col.9, lines 26-41 wherein source address field and a destination address field are mentioned in data header).

**Regarding claim 21**, Spinney et al. teach the method wherein said at least one field comprises a plurality of fields, and said determining said flow table index value comprises at least one of: hashing data of said plurality of fields, and concatenating data of said plurality of fields (see col.18, line 58 to col.19, line 14 wherein use of hash function is mentioned in determining flow table index value of extracted header data bytes).

**Regarding claim 25,** Spinney et al. teach the method wherein said processing comprises at least one of: enqueuing said data packet; modifying said data packet; and dropping said data packet (see col. 27, line 66 to col.28, line 13).

**Regarding claim 26,** Spinney et al. teach the method wherein said processing further comprises: comparing a size value associated with said data packet to said rate credit value (see col.23, lines 17-32); and comparing said buffer count value to a buffer limit value (see col.29, lines 1-14).

**Regarding claim 28,** Spinney et al. teach the method wherein said processing further comprises: dropping said data packet in response to a determination that said size value associated with said data packet is greater than said rate credit value (see col.20, lines 33-39 wherein no transmission of packets unless a credit exists for the circuit is mentioned).

**Regarding claim 29,** Spinney et al. teach the method further comprising: decrementing said rate credit value by said size value associated with said data packet

in response to a determination that said size value associated with said data packet is less than or equal to said rate credit value (see Fig.31 and col.23, lines 25-28 wherein QM decrementing the credit count is mentioned).

**Regarding claim 30,** Spinney et al. teach the method wherein said processing further comprises: comparing a size value associated with said data packet to said rate credit value (see col.20, lines 33-39), determining a buffer limit value in response to said comparing said size value associated with said data packet to said rate credit value (see col.27, lines 33-45) and comparing said buffer count value to said buffer limit value in response to said determining said buffer limit value (see col.28, line 63 to col.29, line11).

**Regarding claims 31 and 32**, Spinney et al. teach the method wherein said determining said buffer limit value comprises: determining a buffer limit value in response to a determination that said size value associated with said data packet is less than or equal to said rate credit value and wherein said determining said buffer limit value further comprises: determining a reduced buffer limit in response to a determination that said size value associated with said data packet is greater than said rate credit value (see col.27, lines 40-56).

**Regarding claim 33**, Spinney et al. teach an apparatus (see Fig.4, 40 for Relay Engine) comprising: means for extracting at least one field from a data packet (see col.18, line 58 to col.19, line 2 wherein the extraction of header data bytes using Hash function is mentioned); means for determining a flow table index value using said at least one field (see col.19, lines 12-14 and lines 31-44 wherein determination of flow tag

based on the extracted data bytes by the Hash Preprocessor is mentioned); means for identifying a flow table entry using said flow table index value (see col.19, lines 34-57 wherein identification of flow tag and its corresponding flow circuit are mentioned) wherein said flow table entry comprises a first field associated with a rate credit value (see col.20, lines 33-39 wherein transmit credits for the corresponding circuit is mentioned), and a second field associated with a buffer count value (see col.20, lines 39-49 wherein buffer length in bytes is mentioned); and means for processing said packet using said rate credit value and said buffer count value (see col.20, lines 49-65 wherein queue service policy for transmission of data packets is mentioned).

**Regarding claim 34**, Spinney et al. teach the apparatus wherein said rate credit value represents a transfer rate of a flow associated with said flow table entry (see col.20, lines 33-39 wherein transmit credits for the corresponding flow/circuit is mentioned), and said buffer count value represents quantity of memory space allocated to said flow associated with said flow table entry (see col.20, lines 39-55 wherein buffer length in bytes for the corresponding flow/circuit is mentioned).

**Regarding claims 35 and 36**, Spinney et al. teach the apparatus further comprising: means for periodically incrementing said credit value by an increment and wherein said means for periodically incrementing comprises: means for periodically incrementing said credit value by an increment up to a predetermined maximum value (see col.24, lines 30-40 wherein the proper establishment of credit by MOM to QM about every 10 milliseconds is mentioned).

**Regarding claim 37**, Spinney et al. teach the apparatus wherein said at least one field comprises a set of fields, and said means for determining said flow table index value comprises means for determining said flow table index value using a subset of said set of fields (see col.19, lines 12-44).

**Regarding claim 38**, Spinney et al. teach the apparatus wherein said flow table index value belongs to a first set of values, and a maximum number of values in said first set of values is less than a maximum number of possible flows (see col.20, lines 29-32 wherein maximum no. of transmit queues for the circuits is mentioned).

**Regarding claim 39**, Spinney et al. teach the apparatus wherein said at least one field from a data packet comprises a source address field and a destination address field (see Fig.7A and col.9, lines 26-41 wherein source address field and a destination address field are mentioned in data header).

**Regarding claim 41**, Spinney et al. teach the apparatus wherein said at least one field comprises a plurality of fields, and said means for determining said flow table index value comprises at least one of: means for hashing data of said plurality of fields, and means for concatenating data of said plurality of fields (see col.18, line 58 to col.19, line 14 wherein use of hash function is mentioned in determining flow table index value of extracted header data bytes).

**Regarding claim 45,** Spinney et al. teach the apparatus wherein said processing comprises at least one of: means for enqueuing said data packet; means for modifying said data packet; and means for dropping said data packet (see col. 27, line 66 to col.28, line 13).

**Regarding claim 46,** Spinney et al. teach the apparatus wherein said processing further comprises: means for comparing a size value associated with said data packet to said rate credit value (see col.23, lines 17-32); and means for comparing said buffer count value to a buffer limit value (see col.29, lines 1-14).

**Regarding claim 48,** Spinney et al. teach the apparatus wherein said processing further comprises: means for dropping said data packet in response to a determination that said size value associated with said data packet is greater than said rate credit value (see col.20, lines 33-39 wherein no transmission of packets unless a credit exists for the circuit is mentioned).

**Regarding claim 49,** Spinney et al. teach the apparatus further comprising: means for decrementing said rate credit value by said size value associated with said data packet in response to a determination that said size value associated with said data packet is less than or equal to said rate credit value (see Fig.31 and col.23, lines 25-28 wherein QM decrementing the credit count is mentioned).

**Regarding claim 50,** Spinney et al. teach the apparatus wherein said means for processing further comprises: means for comparing a size value associated with said data packet to said rate credit value (see col.20, lines 33-39), means for determining a buffer limit value (see col.27, lines 33-45) and means for comparing said buffer count value to said buffer limit value (see col.28, line 63 to col.29, line11).

**Regarding claims 51 and 52**, Spinney et al. teach the apparatus wherein said means for determining said buffer limit value comprises: means for determining a buffer limit value in response to a determination that said size value associated with said data

packet is less than or equal to said rate credit value and wherein said means for determining said buffer limit value further comprises: means for determining a reduced buffer limit in response to a determination that said size value associated with said data packet is greater than said rate credit value (see col.27, lines 40-56).

**Regarding claim 53**, Spinney et al. teach a machine-readable medium having a plurality of instructions executable by a machine embodied therein (see Fig.4, 40 and col.5, lines 35-48), wherein said plurality of instructions when executed cause said machine to perform a method comprising: extracting at least one field from a data packet (see col.18, line 58 to col.19, line 2 wherein the extraction of header data bytes is mentioned); determining a flow table index value using said at least one field (see col.19, lines 12-14 and lines 31-44 wherein determination of flow tag based on the extracted data bytes is mentioned); identifying a flow table entry using said flow table index value (see col.19, lines 34-57) wherein said flow table entry comprises a first field associated with a rate credit value (see col.20, lines 33-39 wherein transmit credits for the corresponding circuit is mentioned), and a second field associated with a buffer count value (see col.20, lines 39-49 wherein buffer length in bytes is mentioned); and processing said packet using said rate credit value and said buffer count value (see col.20, lines 49-65 wherein queue service policy for transmission of data packets is mentioned).

**Regarding claim 54**, Spinney et al. teach the machine-readable medium wherein said rate credit value represents a transfer rate of a flow associated with said flow table entry (see col.20, lines 33-39 wherein transmit credits for the corresponding

flow/circuit is mentioned), and said buffer count value represents quantity of memory space allocated to said flow associated with said flow table entry (see col.20, lines 39-55 wherein buffer length in bytes for the corresponding flow/circuit is mentioned).

**Regarding claim 55**, Spinney et al. teach the machine-readable medium wherein said flow table index value belongs to a first set of values, and a maximum number of values in said first set of values is less than a maximum number of possible flows (see col.20, lines 29-32 wherein maximum no. of transmit queues for the circuits is mentioned).

**Regarding claim 56**, Spinney et al. teach the machine-readable medium wherein said processing further comprises: comparing a size value associated with said data packet to said rate credit value (see col.20, lines 33-39); determining a buffer limit value in response to said comparing said size value associated with said data packet to said rate credit value (see col.27, lines 33-45); and comparing said buffer count value to said buffer limit value in response to said determining said buffer limit value (see col.28, line 63 to col.29, line11).

**Regarding claims 57 and 58**, Spinney et al. teach the machine-readable medium wherein said determining said buffer limit value comprises: determining a buffer limit value in response to a determination that said size value associated with said data packet is less than or equal to said rate credit value and wherein said determining said buffer limit value further comprises: determining a reduced buffer limit in response to a determination that said size value associated with said data packet is greater than said rate credit value (see col.27, lines 40-56).

**Regarding claim 59**, Spinney et al. teach a data processing system (see Fig.4) comprising: a buffer manager (see Fig.4, 30 for Queue Manager) configured to receive a data packet (see col.18, lines 58-62 wherein the receipt of packet is mentioned); and a controller (see Fig.4, 40) coupled to said buffer manager and configured to, extract at least one field from a data packet (see col.18, line 58 to col.19, line 2 wherein the extraction of header data bytes is mentioned); determine a flow table index value using said at least one field (see col.19, lines 12-14 and lines 31-44 wherein determination of flow tag based on the extracted data bytes is mentioned); identify a flow table entry using said flow table index value (see col.19, lines 34-57) wherein said flow table entry comprises a first field associated with a rate credit value (see col.20, lines 33-39 wherein transmit credits for the corresponding circuit is mentioned), and a second field associated with a buffer count value (see col.20, lines 39-49 wherein buffer length in bytes is mentioned); and process said packet using said rate credit value and said buffer count value (see col.20, lines 49-65 wherein queue service policy for transmission of data packets is mentioned).

**Regarding claim 60**, Spinney et al. teach the data processing system wherein said rate credit value represents a transfer rate of a flow associated with said flow table entry (see col.20, lines 33-39 wherein transmit credits for the corresponding flow/circuit is mentioned), and said buffer count value represents quantity of memory space allocated to said flow associated with said flow table entry (see col.20, lines 39-55 wherein buffer length in bytes for the corresponding flow/circuit is mentioned).

**Regarding claim 61**, Spinney et al. teach the data processing system wherein said flow table index value belongs to a first set of values, and a maximum number of values in said first set of values is less than a maximum number of possible flows (see col.20, lines 29-32 wherein maximum no. of transmit queues for the circuits is mentioned).

**Regarding claim 62**, Spinney et al. teach the data processing system wherein said controller is further configured to, compare a size value associated with said data packet to said rate credit value (see col.20, lines 33-39); determine a buffer limit value (see col.27, lines 33-45); and compare said buffer count value to said buffer limit value (see col.28, line 63 to col.29, line11).

**Regarding claims 63 and 64**, Spinney et al. teach the data processing system wherein said controller is further configured to determine a buffer limit value in response to a determination that said size value associated with said data packet is less than or equal to said rate credit value and wherein said controller is further configured to determine a reduced buffer limit in response to a determination that said size value associated with said data packet is greater than said rate credit value (see col.27, lines 40-56).

**Regarding claim 65**, Spinney et al. teach an apparatus (see Fig.4, 40 for Relay Engine) comprising: means for parsing an incoming packet comprising a plurality of fields to generate an extracted plurality of fields (see col.18, line 58 to col.19, line 2 wherein the extraction of header data bytes using Hash function is mentioned); means for transforming said extracted plurality of fields according to an algorithm to generate a

result (see col.19, lines 12-14 and lines 31-44 wherein determination of flow tag based on the extracted data bytes by the Hash Preprocessor is mentioned) wherein said means for transforming comprises at least one of, means for hashing data of said extracted plurality of fields and means for concatenating data of said extracted plurality of fields (see col.18, line 58 to col.19, line 14 wherein use of hash function is mentioned in determining flow table index value of extracted header data bytes); means for mapping said result according to a mapping function wherein the output of said mapping function is an index corresponding to a flow table entry (see col.19, lines 34-57 wherein identification of flow tag and its corresponding flow circuit are mentioned); means for reading the flow table entry identified by said index, said flow table entry containing at least a field identifying a credit value (see col.20, lines 33-39 wherein transmit credits for the corresponding circuit is mentioned); means for comparing said credit value to a quantity signifying insufficient credits (see col.20, lines 33-39 wherein no transmission of packets unless a credit exists for the circuit is mentioned); means for processing or dropping the packet based on said comparing (see col.20, lines 49-65 wherein queue service policy for transmission of data packets is mentioned); and means for periodically incrementing said credit value by an increment (see col.24, lines 30-40 wherein the proper establishment of credit by MOM to QM about every 10 milliseconds is mentioned).

**Regarding claim 66**, Spinney et al. teach the apparatus wherein said means for processing further comprises: means for testing a size of the packet against said credit value (see col.23, lines 17-32); means for decrementing said credit value by the size of

the packet if the size is less than or equal to said credit value (see Fig.31 and col.23, lines 25-28 wherein QM decrementing the credit count is mentioned); and means for setting said credit value to zero and dropping the packet if the size is greater than said credit value (see col.20, lines 33-39 wherein no transmission of packets unless a credit exists for the circuit is mentioned).

**Regarding claim 67**, Spinney et al. teach the apparatus wherein said means for processing further comprises: means for enqueuing the packet if said credit value is greater than or equal to zero (see col. 27, line 66 to col.28, line 13); and means for dropping the packet if said credit value is less than zero (see col.20, lines 33-39 wherein no transmission of packets unless a credit exists for the circuit is mentioned).

**Regarding claim 68**, Spinney et al. teach a method comprising: identifying an internetworking device (see Fig.1 and col.2, lines 9-11 wherein a router is mentioned as internetworking device/data communications switch) comprising a flow table within a communications network, wherein said flow table (see col.19, lines 34-57) comprises a first field associated with a rate credit value (see col.20, lines 33-39 wherein transmit credits for the corresponding circuit is mentioned), and a second field associated with a buffer count value (see col.20, lines 39-49 wherein buffer length in bytes is mentioned); and transmitting a data packet within said communications network in response to said identifying (see col.20, lines 49-65 wherein queue service policy for transmission of data packets is mentioned).

**Regarding claim 69**, Spinney et al. teach the method wherein said transmitting comprises: transmitting said data packet within said communications network using said

internetworking device (see Fig.1 and col.2, lines 9-11 wherein a router is mentioned as internetworking device/data communications switch and see col.28, line 63 to col.29, line 14 wherein the transmission/processing of the packet by the switch is mentioned).

**Regarding claim 70**, Spinney et al. teach the method wherein said rate credit value represents a transfer rate of a flow associated with said flow table entry (see col.20, lines 33-39 wherein transmit credits for the corresponding flow/circuit is mentioned), and said buffer count value represents quantity of memory space allocated to said flow associated with said flow table entry (see col.20, lines 39-55 wherein buffer length in bytes for the corresponding flow/circuit is mentioned).

### *Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 22-24, 42-44, and 71-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spinney et al. (US Patent No: 6,426,943 B1) in view of Bergman et al. (US Patent No: 5,303,237).

**Regarding claim 22**, Spinney et al. do not teach specifically the method further comprising: performing said determining, said identifying, and said processing in response to a determination that data packet comprises a Voice packet.

However, Bergman et al. teach the method where data packet/frame comprises a Voice packet in a digital communication network (see col.4, lines 29-32 where a frame containing voice or data is mentioned and also see col.1, lines 41-45).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method of Spinney et al. to include voice in a data packet disclosed by Bergman et al. to support Voice over IP communication in the network.

**Regarding claims 23 and 24,** Spinney et al. do not teach specifically the method wherein said identifying a flow table entry comprises: identifying a flow table entry within a voice flow table/ voice portion of a flow table.

However, Bergman et al. teach the method where a data flow table can contain a voice flow table/ voice portion of a flow table (see col.1, lines 41-45 wherein encoding and transmission of voice in digital communication network is mentioned and also see col.4, lines 29-32 where a frame containing voice or data is mentioned).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method of Spinney et al. to include a voice flow table/ voice portion of a flow table in a flow table disclosed by Bergman et al. to support Voice over IP communication in the network.

**Regarding claim 42**, Spinney et al. do not teach specifically the apparatus further comprising: means for performing said determining, said identifying, and said processing in response to a determination that data packet comprises a voice packet.

However, Bergman et al. teach the apparatus where data packet/frame comprises a Voice packet in a digital communication network (see col.4, lines 29-32 where a frame containing voice or data is mentioned and also see col.1, lines 41-45).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Spinney et al. to include voice in a data packet disclosed by Bergman et al. to support Voice over IP communication in the network.

**Regarding claims 43 and 44,** Spinney et al. do not teach specifically the apparatus, wherein said means for identifying a flow table entry comprises: means for identifying a flow table entry within a voice flow table/ voice portion of a flow table.

However, Bergman et al. teach the apparatus where a data flow table can contain a voice flow table/ voice portion of a flow table (see col.1, lines 41-45 wherein encoding and transmission of voice in digital communication network is mentioned and also see col.4, lines 29-32 where a frame containing voice or data is mentioned).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Spinney et al. to include a voice flow table/ voice portion of a flow table in a data flow table disclosed by Bergman et al. to support Voice over IP communication in the network.

**Regarding claim 71**, Spinney et al. do not teach specifically the method wherein said data packet comprises a voice packet, said method further comprising: encoding a portion of a voice signal within said voice packet.

However, Bergman et al. teach the method wherein said data packet comprises a voice packet (see col.4, lines 29-32 where a frame containing voice or data is mentioned), said method further comprising: encoding a portion of a voice signal within said voice packet (see col.1, lines 41-45 wherein encoding and transmission of voice in digital communication network is mentioned).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method of Spinney et al. to have data packet comprising a voice packet and encoding a portion of a voice signal within said voice packet disclosed by Bergman et al. to support Voice over IP communication in the network.

**Regarding claim 72**, Spinney et al. do not teach specifically the method further comprising: receiving a traffic congestion notification message from said internetworking device.

However, Bergman et al. teach the method comprising receiving a traffic congestion notification message from said internetworking device (see col.4, lines 50-58).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method of Spinney et al. to include receiving a traffic congestion notification message from said internetworking device disclosed by Bergman et al. to avoid congestion and data loss in the network.

**Regarding claims 73 and 74**, Bergman et al. further teach the method further comprising: reducing/maintaining a data packet transmission rate to said internetworking device in response to said receiving (see col.4, lines 50-61).

10. Claims 27 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spinney et al. (US Patent No: 6,426,943 B1) in view of Choudhury et al. (US Patent No: 5,541,912).

**Regarding claim 27**, Spinney et al. do not teach specifically the method wherein said processing further comprises: dropping said data packet in response to a determination that said buffer count value is greater than said buffer limit value.

However, Choudhury et al. teach the method further comprising dropping said data packet in response to a determination that said buffer count value is greater than said buffer limit value (see col.8, lines 41-48 wherein dropping of packet is mentioned

when the queue length i.e. buffer count value exceeds the control threshold value i.e. buffer limit value).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the method of Spinney et al. to include dropping data packet in response to a determination that said buffer count value is greater than said buffer limit value, disclosed by Choudhury et al. to avoid congestion in the network.

**Regarding claim 47**, Spinney et al. do not teach specifically the apparatus wherein said means for processing further comprises: means for dropping said data packet in response to a determination that said buffer count value is greater than said buffer limit value.

However, Choudhury et al. teach the apparatus further comprising means for dropping said data packet in response to a determination that said buffer count value is greater than said buffer limit value (see col.8, lines 41-48 wherein dropping of packet is mentioned when the queue length i.e. buffer count value exceeds the control threshold value i.e. buffer limit value).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Spinney et al. to include means for dropping data packet in response to a determination that said buffer count value is greater than said buffer limit value, disclosed by Choudhury et al. to avoid congestion in the network.

### *Allowable Subject Matter*

11. Claims 20 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Conclusion*

12. Any response to this office action should be faxed to (571) 273-8300 or mailed To:

Commissioner for Patents,
P.O. Box 1450
Alexandria, VA 22313-1450
**Hand-delivered responses should be brought to**
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SRINIVASA R. REDDIVALAM whose telephone number is (571)270-3524. The examiner can normally be reached on Mon-Fri 9:30 AM - 7 PM (1st Friday OFF).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on 571-272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S Reddivalam

02/26/2008

/Chirag G Shah/
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